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A BEHAVIORAL APPROACH TO GROUP TREATMENT OF CHILDREN.

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A BEHAVIORAL APPROACH WAS USED TO TREAT SMALL GROUPS OF CHILDREN IN AN INNER CITY SETTING. THE GROUPS WERE ORGANIZED UNDER THE AUSPICES OF THE HARTWIG PROJECT OF THE NEIGHBORHOOD SERVICE ORGANIZATION OF DETROIT AND CONSISTED OF CHILDREN WITH SCHOOL ADOPTION PROBLEMS, DELINQUENT GANGS, AND CHILDREN FROM DISADVANTAGED SECTIONS OF THE COMMUNITY. GROUPS CONTAINED THREE TO SEVEN CHILDREN BETWEEN THE AGES OF EIGHT AND 15. THEY WERE HOMOGENEOUS IN REGARD TO SEX, AGE, AND SOCIO-ECONOMIC BACKGROUND AND HETEROGENEOUS IN REGARD TO PROBLEMS PRESENTED. BEHAVIORAL ASSESSMENT DETERMINED THE NATURE, FREQUENCY, AND CONDITIONS OF THE MALADAPTIVE BEHAVIORS. ON THE BASIS OF THE MALADAPTIVE BEHAVIORS, GOALS WERE SET FOR EACH GROUP MEMBER. A BASELINE WAS DETERMINED FOR EACH MALADAPTIVE BEHAVIOR SO THAT SUBSEQUENT BEHAVIOR AFTER INTERVENTION BY THE WORKER COULD BE MONITORED FOR CHANGE. MEANS OF INTERVENTION INCLUDED REINFORCEMENT, TOKEN ECONOMY, GROUP ACTIVITIES, BEHAVIORAL ASSIGNMENTS, MODEL PRESENTATION, AND SYSTEMATIC DESENSITIZATION. TREATMENT WAS TERMINATED ON THE BASIS OF ACHIEVEMENT OF TREATMENT GOALS. TO DATE, RESULTS APPEAR PROMISING. CHANGES IN THE DESIRED DIRECTION HAVE BEEN OBSERVED IN A LARGE MAJORITY OF THE MALE CLIENTS, BEHAVIORAL ASSIGNMENTS HAVE BEEN FAVORABLY RECEIVED, AND GROUP WORKERS ARE ENTHUSIASTIC ABOUT THE APPROACH. (SK)

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A BEHAVIORAL APPROACH TO GROUP TREATMENT OF CHILDREN

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This paper presents a description of a behavioral approach for the treatment of children in small groups and some of the practical problems involved in carrying out this model. The approach is characterized by the application of behavior modification procedures and the utilization of the small group as means to achieve change. There is increasing empirical evidence that behavior modification procedures are highly effective in modifying maladaptive behaviors in a wide range of populations,[1] and considerable research points to the influence of group variables on individual behavior.[2]

One might therefore conclude that the combination of the therapeutic potential of the behavior modification procedures and the small group would enhance present treatment practices. There are only a few studies in which this promising combination has been used.[3] These studies, however, involve treatment in which the group was used merely as a context, not as an active agent of change, and typically only a narrow range of change techniques was employed. The approach described here endeavors to make greater use of the therapeutic promise of the small group and to employ a large battery of techniques of behavior modification.

Briefly, in this approach certain therapeutically desirable behaviors performed during the meeting are reinforced with concrete rewards on a systematic basis. Home assignments are given; training is given in the group on how to perform them; and assignments are monitored by the worker through self-report of the child and report of the teacher or parent. The group cohesiveness is stimulated to enhance the power of the group and worker as reinforcing agents and to increase the pressure toward conformity with group norms. Through reinforcement procedures, adaptive group norms and roles are promoted.

It is not possible in the time allotted to this paper to present all aspects of the approach. As a result, some topics have been omitted and others have been touched on only briefly. We stress such topics as behavioral assessment, monitoring of the change process, token economy, and behavioral assignments. Topics such as the use of the indirect means of intervention have been only briefly alluded to in spite of their importance in this approach.[4]

The approach reported here was first planned in advance. Then, in the course of the Summer of 1966, one group was treated using these sets of techniques. On the basis of this experience, in the Fall of 1966, eight additional groups were organized, most of them coming under the auspices of the group work staff of the Hartwig Project of the Neighborhood Service Organization of Detroit. N.S.O. is a multi-function agency that serves children with school adaptation problems, delinquent gangs, clients in housing projects, and clients from other disadvantaged sections of the community. Since N.S.O. has no building of its own, it uses rented office space, store fronts, and school rooms. It has made considerable use of the detached worker who interviews clients and holds group treatment sessions in the homes of clients, at their hangouts, and in local cafes, schools and churches. The Hartwig Project, begun in Fall of 1965, operates out of the precinct police station. The detached worker attempts to use behavioral modification procedures as a means of reducing delinquent behaviors of the children referred from the police.

The groups of clients treated with this approach consist of three to seven children, 8-15 years old who are grouped in such a way as to be relatively homogeneous as to sex, age, and socio-economic background; in most cases, however, the groups are heterogeneous in regard to presenting problems. The clients are for the most part referred to the project after having had one or more contacts with the police for such reasons as being missing from home for a period of time, breaking and entry, and persistent truancy. The clients initially are met by the worker in the police station or, shortly after the contact with the police, at home or at school. They are told about the group and invited to observe a meeting to see whether or not they would like it. Contact with the client may continue on an individual basis if he refuses to visit the group or if no group is available at that time.

Basic Components of Treatment

Basic components of this approach, which form the major sub-topics for this section of the paper, include behavioral assessment, establishment of goals, monitoring of change, means of intervention, and termination.

Assessment

The goals of assessment are to determine the nature, frequency, and conditions impinging on the maladaptive behaviors. By "maladaptive" we mean behaviors which need to be increased or decreased in frequency or behaviors which are not being performed in the appropriate situations. Some of the specific problems for which children are being treated are often multiple combinations of the following: truancy, arguments with parents and siblings, non-completion of classroom assignments, glue sniffing, occasional petty larceny, car thefts, absence from the home, limited interaction with other children, avoidance of adults, and sexual aberrations.

Members who are referred to the agency are considered for the group on the basis of behaviorally specific presenting problems. Since in our experience most problems can be described in terms of their behavioral manifestations, the worker explores with the client and significant others the complaint made in the referral, the basic behavioral manifestations of that complaint, the frequency of the problematic behaviors, the conditions under which such behaviors occur, and the conditions which appear to maintain those behaviors.

Assessment begins in the first treatment contact with the client and continues, with diminishing emphasis, throughout treatment. The initial assessment is altered as new evidence for modification accumulates. As one collects evidence, the assessment usually becomes more refined in terms of stipulation of the impinging conditions. As satisfaction from the treatment contacts is experienced, clients and significant others tend to reveal other maladaptive behaviors about which they may have hesitated to speak in the initial contacts with the worker. Moreover, in the group the worker observes interactive problems which may be an indication of maladaptive behaviors outside of the group.

The sources of information about assessment of the problem are the client himself made prior to group treatment, observation by the worker in the group meetings, and interviews with parents, teachers, and other persons relevant to

the client. We are also concerned with who it is who judges the given problem as maladaptive: e.g., client, parent, or teacher. We have found differences among the various people defining the problem even when the evidence is similarly perceived. In some situations, the behavior is defined as maladaptive only by the larger middle class communities and its regulating agencies, the social worker, or the public.

As we pointed out, no assessment is complete with a mere description of the problematic behaviors. It is essential to know the conditions preceding and accompanying the maladaptive behaviors as well as the environmental consequences of the behavior because the treatment plan is based on this information. Thus, if John sniffs glue several times a week we need to know what happens immediately prior to the sniffing of glue. If we discover that he sniffs glue only when his father leaves him alone in the house, or when he argues with his mother, or if it appears that after he sniffs glue, his younger brothers view him as a hero, one then has a basis for making a treatment plan.

Goal Setting

On the basis of the presenting maladaptive behaviors, individual treatment goals are set for each client in the group. Goals are stated in terms of frequencies or other measurements along the same scale on which the initial maladaptive behavior was established. For example, if Jack went to school on the average of once a week prior to treatment, the ultimate treatment goal might be that he not miss more than one day a month for reasons other than sickness. If the mother has stated that prior to treatment Ted argued with his siblings very frequently, the treatment goal might be that Ted argue with his siblings very infrequently. If Harv can remain sitting in his seat in school only fifteen minutes per hour when it is required, the treatment goal might be to increase that time to 55 minutes.

If the step between the initial performance and the desired performance is not readily attainable, subgoals are established intermediate to the initial level and the final treatment goal. In this way, a series of readily attainable steps are established which are ordered by the client with the help of the worker as to the difficulty of attainment. This sequence is referred to as a behavioral curriculum,[5] one or more of which is established for each client in the group. In the example mentioned above, the worker might set as subgoals for Harv sitting still in his seat 25 minutes in each hour, then 35 minutes and then 45 minutes. The entire sequence, including the terminal goal of 55 minutes, is an example of a behavioral curriculum.

Group treatment goals are established for those interactive problems which most of the members are having. In one group, few of the group members were able to share objects with others. In the first meeting there was not one attempt to share games, food, or other objects with another member. The group treatment goal was to increase the frequency of sharing behaviors to three or more times per meeting. Even group treatment goals, it should be noted, are stated in terms of behaviors which need to be modified.

Tentative but nevertheless specific treatment goals are established in the first contacts with all clients. The client is involved in the decision as to which goals and behaviors are to be dealt with. It is imperative in this method

that a "treatment contract" - a working agreement as to goals and conditions of treatment - be explored, negotiated, and eventually established with each of the group members. In setting goals, it is necessary to remember that the group must be established both as a source of pleasure and of pressure for change.

Monitoring Behavior

In order to estimate the "intensity" of each presenting problem, it is first necessary to establish a baseline for each of the clients; this baseline is the frequency with which the given problem behavior is manifested prior to intervention by the worker. The estimate of the baseline makes it possible to evaluate the effects of treatment at any time during treatment.

In our initial group experiences we had planned to establish baseline behaviors from observations made in the group. Since most maladaptive behaviors disappeared after the first five minutes and did not reappear in the five weeks in which the group met, this did not present the best source of observation. Therefore, the baseline is being established in subsequent groups on the basis of parental or teacher reports or direct observation in crucial situations of home and school. The process whereby observations are made and systematically recorded is referred to as monitoring. Some of the specific techniques used in monitoring have been the use of the Pupil Behavior Inventory[6] and an observational schedule used by volunteer observers in the classroom. In addition to these, the teacher or parents may count the frequency of one or more specific behaviors in a given time period, such as the number of fights, the number of times the client argues with the parent, the number of times the client asserts himself to his older brother, the number of hours he spends doing his homework, or the number of days he attends school.

In addition to establishing a baseline, behaviors are monitored at various times during the treatment, at termination, and six months after termination. Some forms of monitoring occur every week in relation to the specific home or school behavioral assignments given to the clients.

The degree of change is estimated by the difference in behavior observed between the period prior to, or at the beginning of, treatment, when the baseline is established, and at the point of evaluation. Thus we have a variety of sources to estimate whether the client is performing at an adequate level and whether he should be completely terminated, partially terminated, continued in intensive treatment, or referred to other agencies.

In addition, we can estimate the stability of change by means of a follow-up evaluation study six months following termination. School, family, and police data are used to estimate whether changes are stable. Although up to the present time only one group has been terminated, we have conducted a follow-up study with clients who had been treated with other methods to develop procedures for evaluation of the stability of change. Although some refinement is required (such as advising the clients at termination as to our intentions), we were impressed with the possibilities for estimating the effectiveness of treatment in terms of various scales.

Means of Intervention

The generic category for those procedures used to modify client behavior has been referred to as "means of intervention."[7] In the group situation, it is possible to use techniques for the purpose of modifying the idiosyncratic behavior of one individual with little reference to its implication for others in the group. It is also possible to use the same or other techniques for the modification of group attractiveness, group interactive patterns, group norms or rules, and group leadership and status patterns. The former techniques are referred to as direct means of intervention, the latter as indirect. The ultimate goal in both cases, however, is the modification of the behavior of individuals. Behavioral theories have proposed means of intervention, for both direct and indirect purposes, which are highly specific in terms of actual worker behavior. Moreover, in many cases behavioral methods suggest the conditions under which some of these techniques are most useful as well as the ends to which they can best be applied.

Reinforcement. In this approach, the major means of intervention are reinforcement procedures. In order to establish the worker's potency as a dispenser of both verbal and token reinforcement in the first few sessions, enormous quantities of food (a primary reinforcer) are dispersed to the clients on arrival. Patterson[8] has found that this procedure resulted in significant responsiveness to the worker, and our initial experiences support his findings. The worker places candy, soft drinks, potato chips, and the like in front of each member as he arrives. "This is just for coming," the worker says. The members usually respond with surprise and even disbelief at which time the worker merely affirms his initial statement. After the third meeting, the reinforcement of this type becomes intermittent,[9] although some type of food may be served on arrival without any statement by the worker.

This not only reinforces the behavior of attending the group meetings; the worker, by being paired with primary reinforcement, becomes a stronger reinforcer and can much more effectively disperse social reinforcement at a later date. Peter and Jenkins[10] have shown that praise by those persons who have previously distributed primary reinforcement is more likely to function as reinforcement than praise by those who have not.

The Token Economy. Most of our clients who come from lower economic subcultures do not initially respond to verbal or social reinforcement. The fact that lower economic groups respond less positively to verbal reinforcement than do middle class groups has been demonstrated by Terrell, Durkin, and Wiesley.[11] For this reason, the major means of reinforcement in the initial phases of this approach are tokens. Tokens are given immediately following conformity to group rules, completion of individual behavioral assignments, and performance of any spontaneous behaviors the frequency of which the worker wishes to increase. The extensive use of tokens is generally referred to as a token economy.

In our token economy, tokens can be used as money to make purchases of desirable objects in a "group store." Immediately following the desired behaviors, tokens are administered according to a preconceived plan. The plan involves an appropriate schedule of reinforcement. In such an economy, all behaviors deemed important by the change agents have different numbers of tokens attached to them. Considering the fact that most of our clients suffer from economic deprivation,

the tokens are an especially potent form of reinforcement. The group members are told that they are in a group in which they can earn tokens (e.g., chips, painted blocks, paper money) with which they can make purchases from a "store" of items displayed before them. Differing in values, the objects displayed include such items as candy bars, model airplanes, cosmetics, tickets to professional sports events, tickets to a beauty show, tickets for a trip with the worker, and credits for purchases at a local snack bar. In addition, a series of catalogues are now being developed which will list objects that can be purchased at later times. Separate catalogues are being developed for boys and girls of differing ages.

By performing certain prescribed behaviors or by refraining from performing specified maladaptive behaviors, each member can earn tokens for himself. Tokens are given to a group member after a given time period in which he has adhered to a given rule, spontaneously manifested a desired behavior, or completed his behavioral assignment. Each member keeps his own tokens during the course of the meeting. At the end, he turns in to the worker those tokens which he does not spend in the "group store" and the worker, in turn, keeps them in an envelope. It is important that great care is taken in the bookkeeping because these tokens are so highly important to the members that even minor errors result in emotional outbursts.

Purchases can be made at the end of every meeting. In those groups in which saving is desirable, many highly priced items are placed in the store. (We have contemplated giving interest.) In those groups where members tend to hoard or where it is advisable that the group receive more immediate and frequent gratification, the requirement has been established that half of the tokens earned in a given meeting must be spent at the end of that meeting.

The group remains on the token economy only in the initial phases of treatment. As certain behaviors are reinforced by persons in the extra-group situations or as the behaviors become self-reinforcing, token reinforcement in the group is gradually removed. At first one activity has no tokens attached to it. Later several activities have no tokens attached to them. When the worker informs the members that the tokens have been removed from the activities, this statement usually provokes a renewal of the discussion of the reasons they are in the group and the ultimate goal of changed behavior without the aid of tangible reinforcement.

It should be noted that the worker does not move directly from token reinforcement to non-reinforcement. Social reinforcement in the form of praise and other forms of recognition are utilized as a consequence of adaptive behaviors on which clients have been working. At first this is on a continuous reinforcement schedule; later the worker moves to a more intermittent schedule in order to establish resistance to the extinction of newly learned behaviors.

Group activities. The group activities are initially planned by the worker in such a way as to facilitate the attainment of the treatment goals. Activities are a means of providing the stimulus conditions for those behaviors which the worker is attempting to modify; e.g., if the worker is attempting to increase cooperative behaviors among members, he may plan as an activity the building of a fort and during the activity he will reinforce all cooperative efforts. Activities may also provide a source of reinforcement just for coming to the group meetings. Since many of our groups consist of children with an extensive

delinquent history, it is necessary to find activities which are more attractive than the delinquent activites in which they usually participate. Among the highly valued activities for boys are driving around in the car (when they do not have this opportunity), horseback riding, eating out, riflery, bicycle trips, carnivals, visiting a T.V. star, or trips. Initially these activities are provided merely as a means of making the group and the worker as attractive as possible. As the group becomes attractive, the worker puts a token value on these activities or makes them contingent on certain performances over a period of time.

In the initial phases of treatment, many varied activities of 10-15 minutes each are used. This enables the worker to provide the stimulus conditions compatible with a number of goals and at the same time increases the frequency of the possibility of reinforcement. It also takes into account the limited attention span of most of the clients. As treatment progresses, longer activity periods are added.

Since all of our clients are having difficulties in adapting to school norms, at least one classroom activity is simulated in the treatment meeting. Initially, though the group members occasionally complain about this activity, the tokens soon create a work atmosphere. Incidentally, this activity is usually a heavily rewarded one in the first phase of treatment. As the members perceive the results of improvement in school, the teacher's verbal rewards are usually sufficient to sustain the behavior. The activities used may be such things as, (1) writing an essay about a picture which the worker presents, (2) reading quietly or talking only after the worker-teacher calls upon him, or (3) solving a simple arithmetic problem. During the simulated schoolroom activities the worker assumes much of the role of the teacher. He becomes stricter, demands more attention and, in general, tries to recreate the classroom atmosphere.

Delinquents not only lack skills for adapting to the demands of the classroom, most also lack sports or other physical recreational skills. Few sources of satisfaction, other than delinquent activities, are open to them. For this reason, a physical activity is also included in each meeting. The worker usually spends at least a part of the time devoted to this activity training the members in the performance skills. In complex sports activities it may be necessary, initially, to simplify the game and the number of rules in order to avoid too much frustration. Too many rules for many of our clients provide the stimulus conditions for highly aggressive behaviors. In the course of treatment, however, a conscious effort is made to increase their skills and the rules and the complexity of the games.

Initially, the worker selects the activities according to his knowledge of developmental and sociological taste patterns of his group members. There is little choice by the group members, most of whom are deficient in decision-making skills. Of course, there is some feedback which the worker later uses to modify the program. As the group builds a repertoire of activities, members are allowed to choose their activities as they learn the skills of choosing. The worker may have to include many activities the clients do not prefer as a means of creating conditions for increasing or decreasing certain types of behaviors. The worker makes the ultimate decision as to the nature of the program utilized. Obviously, this is a highly complicated process and the

worker must be careful to balance attractive activities with the less attractive ones, if he does not wish to make the group aversive. It is interesting to note that in most cases if there is self-improvement in the skills required to perform the activity, even aversive activities become attractive.

Behavioral Assignments. A set of behaviors assigned by the worker or members of the group to a given client with his concurrence and participation is a behavioral assignment. These behaviors are expected to be performed in a given time period, usually prior to the next group meeting or conference. These assignments are directly related to the treatment goal and may represent a subgoal or intermediate goal which the client needs to attain prior to the attainment of one of the ultimate treatment goals. Since much of the behavior we as social workers are attempting to modify does not occur within the context of the treatment group, this technique is an excellent means of giving the client practice in the desired behaviors or in restraining or controlling himself from participation in undesirable behaviors in a broad range of situations. Some examples of behavioral assignments are the following:

> Walter, who skips school on the average of twice a week, is assigned the task of attending school for four complete days in a row. Frank, who has frequent arguments with his parents over the fact that he comes in after ten o'clock every night, is assigned the task of coming in at least two nights before ten o'clock and reporting back to the group and the worker the reactions of the parents. Anita, who seldom asserts herself in situations outside the group, has recently begun to do so in the group. The group members assign her the task of responding to her sister, who constantly criticizes her clothing. Anita must say, "It's my clothing and my taste, and I'll wear what I want."

Initially the behavioral assignments are given solely by the worker. As the group members learn the criteria for the establishment of an assignment, they participate not only in their own assignment, but in the assignments of others in the group. The group members also participate in judging whether or not a given assignment has been completed.

Obviously, the effectiveness of such an assignment is dependent on a number of factors. First, the assignment must be highly specific. The client must not only know what he must do, he must know the conditions under which he should do it. Furthermore, if certain unexpected conditions (such as illness) arise, or if the stimulus conditions do not occur, alternative behaviors, such as calling the worker, should be specified. If the assignments are too vague, the client can hedge, the monitoring becomes difficult, and change can scarcely be estimated.

Second, if success is to be obtained, the behaviors should have a relatively high probability of being carried out. If an assignment is given not to argue with mother and she was away on vacation the week following the assignment, failure to perform in the required manner would be certain. If the assignment to the client is, "If someone fights with you, walk away," he is unable to perform the assignment in the course of the week should no one initiate a fight. Should the shy girl be given as a first assignment standing up to her older brother who bullies her, chances of success are low.

If tokens are administered for successful completion of an assignment, monitoring of the assignment by means of direct observation or the report of significant others is usually desirable. If not, the worker may be put in a position of reinforcing exaggerated accounts or lying. Where monitoring is not possible or where monitors may be unreliable or uncooperative, assignments may be given for which no token reinforcement is used. If only verbal reinforcers are used, our experience seems to suggest that the likelihood of deception in self-reports is highly reduced. Praise, it seems, functions as a reinforcer only when the client feels it is deserved.

As one assignment is completed, a slightly more difficult one should be given. Each assignment should be sufficiently difficult so that the client has to make some effort to accomplish it, but sufficiently within the reach of the client so that success is highly probable. As has been frequently noted, success in change is a potent reinforcement in the change process. But if the assignment involves no change at all, we have reinforced only behaviors which are already in the client's repertoire.

If the client states that he is unable to perform a given assignment because he does not know what he should do, or if he is frightened or shows discomfort or a lack of clarity about the procedures to be followed, the worker can reduce the discomfort in a number of ways. He may utilize group discussion with the other members of the group, especially those who have already performed the behavior under the stipulated conditions. He may demonstrate or ask one of the group members to demonstrate exactly how it is to be performed. The worker may use behavioral rehearsal in which, first, the worker or a peer demonstrates and, then, the given client practices the behavior to be performed. When direct practice is not possible, the worker and peers may describe to the client specific steps he must take. One child who had the assignment of being home by 9 p.m. and remaining there was taunted by the other children standing out on the street until he finally went out again. The worker asked the group how they thought he should handle the situation. After they made some suggestions, one of the children played the role of the given client, and the worker and several of the other children played the roles of the children on the street. Finally, the given client played his own role. This was an example of a combination of techniques used by the worker to insure successful carrying out of the assignment.

Instead, or in addition to, the techniques described above, the worker may modify the environment itself, so that the probability of success is increased. In the case of a teacher who criticized the client unmercifully whether or not he changed, the worker arranged for an observer to sit in the class that particular week. The presence of the observer seemed to be a sufficient condition to soften the teacher's constant criticism. In the case of a client who had never been able to do his homework, the worker arranged for a tutor to help him.

A third general requisite of success is to be sure that reinforcement follows immediately after the response one wishes to modify. In using assignments, the reinforcement for their completion usually occurs at the meetings. There are several ways to deal with this problem. First, the teacher, the mother, or the tutor, gives a note to the child to give to the worker. The note for some

children may function as sufficient immediate reinforcement. In some cases the workers have had the significant others who monitored the behavior reinforce the client on the spot with tokens or praise. For assignments in which the given behaviors must increase or decrease over a given time period, the worker stated that the "fixed interval" terminated at exactly the moment that the group meeting began. Where this was not feasible, a special meeting in the middle of the week was arranged in which reinforcement for the completion of short-term assignments was distributed.

Model Presentation. In order to facilitate the learning of new behaviors, real or symbolic models may be presented to clients under those conditions which facilitate social imitation. Since a number of empirically supported hypotheses exist as to the modes and conditions of model presentation which optimize the possibility of imitation, these hypotheses can function as operational guidelines for the worker. Some examples of these hypotheses which will be discussed below are concerned with the use of role-playing, the use of rewards for the model in the presence of the imitator, the use of high status persons as models from the subculture of the imitator, and the use of films or other sources of symbolic models.

One planned form of model presentation is role-playing which has been frequently demonstrated to facilitate learning. In one type of role-playing, the model (a peer or the worker) performs the role of the client under conditions which simulate the conditions in which the client is having difficulty. There are many ways of optimizing learning in role-playing. One of these is to replace the worker with the peer as model as soon as a peer is capable of performing this role. The more the stimulus conditions approximate those of real life, the higher the probability of imitation of the model.[12] This hypothesis points to a second form of optimizing learning. Aspects of the role-playing should duplicate real life situations as nearly as possible. For example, role-playing in the home is more effective than role-playing in a treatment center or school building; the use of the real sibling is preferable to the use of the imitated sibling. A third way to increase the effectiveness of role-playing is to reward the model for performing the appropriate behaviors. Bandura and Walters report that if the model is rewarded in the presence of the subject, the probability of imitation by the subject is increased.[13] Fourth, the individual should move from observation to performing newly learned role behaviors under the simulated conditions, and finally a series of behavioral assignments can be used to encourage the individual to perform the newly practiced behaviors in real life situations such as the home, school, playground, or local hangout.

Another procedure which we have used based on the above-mentioned hypotheses is the introduction into the group as guests those persons who are particularly attractive to the group members. Examples of these models are athletes, a T.V. disc jockey, and a popular teacher. In order to provide more than a model for general orientation to life, which the worker is also providing, the models are programmed to discuss the "moral dilemmas" with which they were confronted in their adolescence and how they resolved these in a pro-social way. Sports heroes reward the group by giving the members sport lessons. Members had their picture taken with the T.V. disc jockey. The rewarding by the model of the group increases the probability of the group members imitating the behavior or

verbalizing the particular orientation.[14] As the members progress, models are used who have made life choices similar to the ones the group members have stated they might like to make. These have been such persons as technicians, cooks, labor organizers, youth leaders, a manager of a roller skating rink, a dental assistant, and a civil rights organizer.

A more spontaneous means of increasing imitation of behaviors which the worker is trying to increase among one or more members of the group is accomplished by the instantaneous rewarding of the desirable behavior performed by a high status group member in the presence of the other group members.

> In a group of highly aggressive youngsters, Pete, the informal leader, was one of the two who was seldom provoked to fighting. Nevertheless, when Charlie bumped into him, Pete was rewarded by the worker for walking away. The purpose was not to increase the probability of this behavior in Pete under the same circumstances, but to increase the imitation of these behaviors by others. In the same group Fred, a low status individual, never fights either. Yet he would not be rewarded under the same circumstances.

Another form of model presentation involves the use of films in which the hero performs those behaviors which the worker would like some members to imitate; the worker may point out those behaviors; he may involve the group in the discussion of the behaviors; or the discussion may pave the way for the role-playing sequence discussed above. Discussion is concerned not only with the behaviors worthy of imitation but also with those behaviours which are followed by immediate or long-range aversive consequences.

A major problem of treatment groups either in institutions or in outpatient groups such as ours, is the presence of many anti-social models. Maladaptive behaviors may thus be seen, practiced, and reinforced. Since modeling effects occur whether the treatment personnel intend them or not, it is imperative that the clients be provided new and, hopefully, exciting models and in a more systematic way than the neighborhood, group, or institution can provide. As Bandura points out, "The systematic use of modeling techniques, whether singly or in conjunction with other treatment methods, is likely to accelerate substantially the successful achievement of therapeutic outcomes."[15]

Other Treatment Procedures. In addition to the behavior modification procedures already mentioned, a number of other procedures have been used to treat special problems not amenable to previously discussed techniques. One such procedure is covert sensitization.[16] This has been used in our groups in the treatment of lying behavior and compulsive stealing.

Because of the presence of a number of anxious clients, the staff of the project is being trained in reciprocal inhibition procedures, i.e., procedures whereby responses which are incompatible with anxiety are stimulated in the client.[17] Two techniques used are systematic desensitization, based on relaxation, and "emotive imagery."[18] In the former, the client is confronted with the fear-stimulating object in increasing intensities while playing some exciting game or imagining some exciting event, such as pretending that he is

Batman and is seated in a Batmobile. In this case, anxiety is incompatible with the emotions aroused by exciting play. Since Lazarus has demonstrated the effectiveness of the former procedure with groups of clients,[19] we would assume that both procedures could be utilized within the context of the operant group. Although this has yet to be demonstrated thus far in our groups, desensitization procedures have resulted in reduction of anxiety or fear in several cases.

Because we are in the first phase of our project, we have not as yet at our disposal all the procedures that our presenting problems require. Although we are rapidly expanding our use of various combinations of procedures reported here, we are confronted with some problems for which our techniques at their present stage of development are not completely adequate. Continued innovation and experimentation with new behavioral technology is thus required.

Termination

Termination in this approach is considered on the basis of the achievement of treatment goals. Since there is an ongoing monitoring of the change process, it is possible to estimate at what point termination should take place. When termination is being considered, all sources of information are recontacted, and based on the information accumulated, a decision is made as to whether treatment should be continued or the client partially or completely terminated, or referred to other agencies.

One of the problems of termination in most of group treatment derives from the fact that most clients become attached to the group and the worker during treatment. Yet, in order to terminate a client, he must be able to function independently of worker assistance in a school, family, work, or recreational setting. This implies that prior to termination the worker assists the client to find other more useful sources of support in teachers, friends, a local minister, boy's club, or parents; and assignments are usually given to this end. He is encouraged and, if necessary, trained to make friends who live in his neighborhood or go to his school. The transfer of change to situations outside of the group is also carried out on a planned basis in order to insure success.

Conclusions

Although the data which have been collected after several months of operation with the behavioral approach to group treatment are necessarily limited, the results thus far seem to be promising. Changes in the desired direction have been observed for the large majority of male clients who have been treated from two to four months. In almost all groups, the behavioral assignments have been positively received by group members and, in most cases, carried out. In no group has there been unplanned discontinuance. The group workers, all of whom are using this approach for the first time, seem to be enthusiastic about it. Moreover, they seem to be rapidly developing a large body of communicable skills which hold the promise of still greater effectiveness. They are coaching volunteers and other non-social work trained workers in the various techniques. Other agencies in the city area are beginning to explore the use of these procedures.

Of course, there are still problems. With those delinquent adolescent girls, who are dependent on highly complex family situations, progress had been slow, especially where the parents have refused to cooperate. At present we still have an insufficient number of terminated cases to estimate the degree of stability of change. We have as yet no control data to discover whether the changes we have observed are not due to maturational changes or to various non-specific aspects of treatment. Thus far, we have not always collected our data in our own prescribed systematic manner. Some of our impressions are no doubt colored by our enthusiasm for the method. Hopefully, our ongoing research will soon contribute to clarification of at least some of the many questions which are still partially or totally unanswered.

Footnotes

1. See especially Leonard Krasner and Leonard P. Ullmann, eds., Research in Behavior Modification (New York: Holt, Rinehart and Winston, 1965).

2. See Albert H. Hastorf, "Reinforcement of Individual Actions in a Group Situation," in Krasner and Ullmann, ibid., pp. 268-284; William F. Oakes, "Reinforcement of Bales' Categories in Group Discussion," Psychological Reports, Vol. 11, No. 2 (October, 1962), pp. 427-435; William F. Oakes, Arnold E. Droge and Barbara August, "Reinforcement Effects on Conclusions Reached in Group Discussion," Psychological Reports, Vol. 9, No. 1 (August, 1961), pp.27-34; David Shapiro, "The Reinforcement of Disagreement in a Small Group," Behaviour Research and Therapy, Vol. 1, No. 3 (December, 1963), pp. 267-272; Herman C. Salzberg, "Manipulation of Verbal Behavior in Group Psychotherapeutic Setting," Psychological Reports, Vol. 9, No. 1 (August, 1961), pp. 183-186; Elaine H. Zimmerman and J. Zimmerman, "The Alteration of Behavior in a Special Classroom Situation," Journal of the Experimental Analysis of Behavior, Vol. 5, No. 1 (January, 1962), pp. 59-60.

3. See, e.g., Gordon L. Paul and Donald T. Shannon, "Treatment of Anxiety through Systematic Desensitization in Therapy Groups," Journal of Abnormal Psychology, Vol. 71, No. 2 (April, 1966), pp. 124-135; Arnold A. Lazarus, Gerald C. Davison and David A. Polefka, "Classical and Operant Factors in the Treatment of a School Phobia," Journal of Abnormal Psychology, Vol. 70, No. 3 (June, 1965), pp. 225-229.

4. For a more complete discussion of indirect means of intervention, see Robert D. Vinter, "The Essential Components of Social Group Work Practice," unpublished manuscript, 1959, pp. 16-25.

5. This concept is treated in more detail by Edwin J. Thomas, "The Socio-behavioral Approach: Illustrations and Analysis," pp. 19-21.

6. See Robert D. Vinter, Rosemary C. Sarri, Darrel J. Vorwaller and Walter E. Schafer, Pupil Behavior Inventory, A Manual for Administration and Scoring (Ann Arbor: Campus Publishers, 1966).

7. See Vinter, op. cit., pp. 7-9.

8. See Gerald R. Patterson, "A Learning Theory Approach to the Treatment of the School Phobic Child," in Leonard P. Ullman and Leonard Krasner, eds., Case Studies in Behavior Modification (New York: Holt, Rinehart and Winston, 1965), pp. 279-284.

9. Throughout this paper the reader will note that reinforcement is first used on a continuous basis (i.e., every time the behavior occurs, it is reinforced) and, later, on an intermittent basis (i.e., reinforcement is given on some occasions in which the desired behavior is present and not on others). Behavior which is continuously reinforced is very rapidly added to the repertoire of an individual. But when reinforcement has been terminated, it is also rapidly extinguished. Intermittent reinforcement has been demonstrated to

increase the resistance to extinction. For these reasons, we establish behavior with continuous reinforcement and maintain it with intermittent reinforcement.

10. Henry N. Peters and Richard L. Jenkins, "Improvement of Chronic Schizophrenic Patients with Guided Problem-Solving Motivated by Hunger," Psychiatric Quarterly Supplement, Vol. 28, No. 1 (January, 1954), pp. 84-101.

11. See Glenn Terrell, Jr., Kathryn Durkin and Melvin Wiesley, "Social Class and the Nature of the Incentive in Discrimination Learning," The Journal of Abnormal and Social Psychology, Vol. 59, No. 2 (September, 1959), pp. 270-272.

12. For a discussion of this hypothesis see Arnold P. Goldstein, Kenneth Heller, and Lee B. Sechrest, Psychotherapy and the Psychology of Behavior Change (New York: John Wiley and Sons, Inc., 1966), pp. 217-219.

13. Evidence for this hypothesis is discussed in Albert Bandura and Richard Walters, Social Learning and Personality Development (New York: Holt, Rinehart and Winston, 1963), pp. 81-82.

14. Ibid., p. 83.

15. See Albert Bandura, "Behavioral Modification through Modeling Procedures," in Krasner and Ullmann, op. cit., p. 340.

16. For a discussion on one variation of this technique, see Joseph R. Cautela, "Treatment of Compulsive Behavior by Covert Sensitization," Psychological Record, Vol. 16, No. 1 (January, 1966), pp. 33-41.

17. For a detailed account of the reciprocal inhibition hypothesis and treatment procedures derived from this hypothesis, see Joseph Wolpe and Arnold Lazarus, Behavior Therapy Techniques (Oxford: Pergamon Press, 1966).

18. The most extensive account of emotive imagery is to be found in Arnold A. Lazarus and Arnold Abramovitz, "The Use of 'Emotive Imagery' in the Treatment of Children's Phobias," in Ullmann and Krasner, op. cit., pp. 300-304.